

## Online supplementary material S2: Assessment of risk of bias

Risk of bias of included clinical trials: Review authors' judgements about each risk of bias item of the Cochrane's RoB tool for each study.

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Alten et al., 2011	+	?	+	+	+	+	+
Alten et al., 2015	+	+	+	+	+	+	+
Bae et al., 2013	+	?	-	-	+	+	+
Baranauskaite et al., 2012	+	?	-	-	+	+	+
Bingham et al., 2014	+	+	+	+	?	+	+
Bird et al., 2019	+	?	+	+	?	+	+
Bowman et al., 2017	+	+	+	+	+	+	+
Braun et al., 2007	+	?	+	+	+	+	+
Braun et al., 2009	+	?	?	?	?	+	+
Burmester et al., 2013	+	+	+	+	+	+	+
Calin et al., 2004	+	?	+	+	+	+	+
Chung et al., 2007	+	+	+	+	+	+	+
Cohen et al., 2006	+	?	+	+	+	+	+
Dass et al., 2008	+	+	+	+	?	+	+
Deodhar, et al. 2016	+	+	+	+	?	+	+
Deodhar, et al. 2019	+	+	+	+	?	+	+
Deodhar, et al. 2021	+	?	+	+	?	+	+
Devauchelle-Pensec et al., 2014	+	+	+	+	+	+	+
Dörner et al., 2019	+	+	+	+	?	+	+
Dougados et al., 2015	+	?	+	+	+	+	+
Emery et al., 2006	+	+	+	+	+	+	+
Fleischmann et al., 2009	+	+	+	+	+	+	+
Genovese et al., 2007	+	+	+	+	+	+	+

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Genovese et al., 2008	+	+	+	+	+	+	+
Genovese et al., 2012	+	+	+	+	+	+	+
Genovese et al., 2018	+	?	+	+	+	+	+
Genovese et al., 2019	+	+	+	+	+	+	+
Ghiti Moghadam et al., 2018	+	?	-	-	+	+	+
Gladman et al., 2007	+	+	+	+	+	+	+
Gladman et al., 2014	+	+	+	+	+	+	+
Gottenberg et al., 2014	+	+	+	+	+	+	+
Hammoudeh et al., 2013	+	+	+	+	?	+	+
Hartkamp et al., 2010	+	+	+	+	+	+	+
Hartkamp et al., 2015	+	+	+	+	+	+	+
Jenks et al., 2010	+	+	+	+	?	+	+
Kekow et al., 2010	+	+	+	?	+	-	+
Keystone et al., 2008	+	?	+	?	+	+	+
Keystone et al., 2017	+	?	+	+	+	+	+
Khanna et al., 2016	+	+	+	+	+	+	+
Kruize et al., 1993	+	?	+	?	?	-	+
Lai et al., 2012	+	+	+	+	?	+	+
Li et al., 2015	+	?	+	?	+	+	+
Li et al., 2020	+	+	+	+	+	+	+
Li et al., 2021	+	+	+	+	+	+	+
Liu et al., 2019	+	+	+	+	+	+	+
Mariette et al., 2004	+	?	+	?	+	+	+
Marzo-Ortega et al., 2017	+	?	+	+	?	+	+
Mease et al., 2008	+	+	+	+	+	+	+
Meijer et al., 2010	+	+	+	?	?	+	+

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Merrill et al., 2010	+	?	+	+	+	+	+
Merrill et al., 2016	+	+	+	+	+	+	+
Mittendorf et al., 2007	+	?	?	?	+	+	+
Moreland et al., 2006	+	+	+	?	?	+	+
Norheim et al., 2012	+	+	+	+	?	+	+
Petri et al., 2017	+	+	+	+	+	+	+
Pincus et al., 2008	+	+	+	+	+	+	+
Pope et al., 2015	+	?	+	?	-	+	+
Posada et al., 2021	+	?	-	-	?	+	+
Revicki et al., 2008	+	+	+	+	+	+	+
Rigby et al., 2011	+	+	+	?	+	+	+
Ritchlin et al., 2014	+	+	+	+	+	+	+
Russell et al., 2007	+	?	+	?	+	+	+
Schiff et al., 2017	+	?	+	?	+	+	+
Seitsalo et al., 2007	+	+	+	?	+	?	+
Sieper et al., 2015	+	+	+	?	?	+	+
Smolen et al., 2008	+	+	+	+	+	+	+
Smolen et al., 2009	+	+	+	+	+	+	+
Smolen et al., 2017	+	+	+	+	?	+	+
Stohl et al., 2017	+	?	+	?	+	+	+
Strand et al., 2009	+	+	+	?	+	+	+
Strand et al., 2011	+	+	+	-	+	+	+
Strand et al., 2012a	+	+	+	?	+	+	+
Strand et al., 2012b	+	?	?	?	+	-	+
Strand et al., 2014a	+	?	-	-	-	?	+
Strand et al., 2014b	+	?	+	-	?	+	+

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Strand et al., 2016a	+	+	+	?	+	?	+
Strand et al., 2016b	+	?	+	+	?	+	+
Strand et al., 2016c	+	?	+	?	?	?	+
Strand et al., 2017a	+	+	+	+	?	+	+
Strand et al., 2017b	+	?	+	+	+	+	+
Strand et al., 2018a	+	?	+	+	+	?	+
Strand et al., 2018b	+	?	+	-	+	?	+
Strand et al., 2019a	+	+	+	+	?	?	+
Strand et al., 2019b	+	+	+	+	+	?	+
Strand et al., 2019c	+	+	+	+	?	?	+
Strand et al., 2019d	+	?	+	+	?	?	+
Strand et al., 2020	+	+	+	+	?	?	+
Strand et al., 2021a	+	?	+	+	?	+	+
Strand et al., 2021b	+	?	+	+	?	+	+
Teitsma et al., 2017	+	?	+	+	+	+	+
Theander et al., 2002	+	?	+	+	-	?	+
Virkki et al., 2010	+	+	+	+	+	+	+
Wanders et al., 2004	+	?	+	?	+	?	+
Weinblatt et al., 2003	+	?	+	+	+	?	+
Wells et al., 2007	+	?	+	-	?	?	+
Westhovens et al., 2006	+	?	+	+	+	+	+
Yokogawa et al., 2017	+	+	+	+	-	+	+
Yount et al., 2007	+	?	+	-	+	-	+
Zhanguo Li et al., 2018	+	?	+	+	?	?	+